AMENDMENTS

Claims 1, 3, 6-9, and 12-21 are pending.

Claim 1 has been amended.

Claims 2, 4-5, and 10-11 have been cancelled.

Support for the amendments is found in the claims and specification (e.g., 11-13 and the Examples), as originally filed. Claim 1 comprises the limitations of claims 2 and 4-5.

No new matter is believed to have been added.

REMARKS/ARGUMENTS

Applicants wish to thank Examiner White for indicating that claims 7-8 are allowable.

Examiner White indicated in the Advisory Action that the rejections (i) of claims 7-8 and 16-17 under 35 U.S.C. 112, second paragraph, and (ii) of claims 1-6, 9, 12-14, and 18-21 under 35 U.S.C. 102(b) over Nagasawa et al., WO 00/73351, have been withdrawn in view of the Applicants' reply filed on July 23, 2009.

The Examiner has rejected claims 1-6, 9, 12-15, and 18-24 under 35 U.S.C. 103(a) over Nagasawa et al. The rejection is traversed because Nagasawa et al. alone or in combination with Golz-Berner et al. or Palinczar do not describe selecting a cellulose ether as a backbone for polysaccharide derivatives, wherein the cellulose ether has an average molecular weight of 100,000 to 600,000 or 100,000 to 200,000 (see present claims 1 and 13). Also, the cited references do not describe the claimed molecular weight of the cellulose ether in combination with "n" being from 10-20 (see present claims 12, 14, and 20-21) and hydroxyethylcellulose having the claimed average molecular weight (see present claim 3).

Properties of polymers depend in part upon molecular weight (MW) and other structural variations (e.g., "n" in formula (1), side chains, etc.).

Nagasawa et al. describe a general formula of polysaccharide derivatives having hydrogen atoms in the hydrogen groups substituted with a group of formula (1), wherein "n"

is represented by a broad range of from 8 to 300 (col. 1-2). Nagasawa et al. further disclose that an average molecular weight ("MW") of the starting polysaccharide or its derivative is represented by a broad range of from 10,000 to 10,000,000, 100,000 to 5,000,000, and 300,000 to 2,000,000 (col. 5, lines 24-26).

> "When the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated. *Ex parte A*, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990). If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." One may look to the preferred embodiments to determine which compounds can be anticipated. *In re Petering*, 301 F.2d 676, 133 USPQ 275 (CCPA 1962) (emphasis added).
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> Compare *In re Meyer,* 599 F.2d 1026, 202 USPQ 175 (CCPA 1979) (A reference disclosing "alkaline chlorine or bromine solution" embraces a large number of species and cannot be said to anticipate claims to "alkali metal hypochlorite."); *Akzo N.V. v. International Trade Comm'n*, 808 F.2d 1471, 1 USPQ2d 1241 (Fed. Cir. 1986) (Claims to a process for making aramid fibers using a 98% solution of sulfuric acid were not anticipated by a reference which disclosed using sulfuric acid solution but which did not disclose using a 98% concentrated sulfuric acid solution.)." *See* MPEP § 2131.02

Nagasawa et al. specifically describe compounds that differ from those claimed. For example, Example 1 describes hydroxyethylcellulose having an average MW about 800,000 and "n" being 50 (col. 10); Example 6 describes hydroxyethylcellulose having an average MW of 1,500,000 and "n" being 12; Example 7 describes hydroxyethylcellulose having an average MW of 1,500,000 and "n" being 19; Example 8 describes hydroxyethylcellulose having an average MW of 800,000 and "n" being 20; Comparative Example 1 describes hydroxyethylcellulose having an average MW of 800,000, Comparative Example 2 describes methylcellulose having an average MW of 300,000; and Comparative Example 3 describes hydroxyethylcellulose having an average MW of 1,500,000 and "n" being 3 (see col. 10-14).

In addition, the compounds of Comparative Examples 1 and 2 do not have side chains (even though hydroxyethylcellulose of Comparative Example 2 has MW within the claimed range), which is not within the scope of the present invention which requires hydrogen atoms in the hydroxy groups of the cellulose ether backbone to be substituted (see present claim 1).

Nagasawa et al. do not teach or suggest selecting a *specific* cellulose ether having an average MW of 100,000 to 600,000 or 100,000 to 200,000 (see present claims 1 and 13) and the claimed molecular weight of the cellulose ether in combination with "n" being from 10-20 (see present claims 12 and 14). Nagasawa et al. also do not teach or suggest selecting hydroxyethylcellulose having an average MW of 100,000 to 600,000 (see present claim 3).

Nagasawa et al. do not describe a polysaccharide comprising agent being an aerosol and a mask having hangers and placed over the mouth, the claimed sheet and cosmetic product comprising the claimed allergen inactivating agent.

Thus, Nagasawa et al. do not make the claimed agent obvious because the allergen inactivating effect of the Nagasawa polysaccharides would not have been expected because (i) the chemical art is unpredictable and (ii) there is insufficient nexus between the allergen inactivating properties and thickening properties. In a recent decision, is was stated that "[t]o the extend an art is unpredictable, as the chemical arts often are, *KSR*'s focus on these "identified, predictable solutions" may present a difficult hurdle because potential solutions are less likely to be genuinely predictable." *Eisai Co, Ltd. v. Dr. Reddy's Lab.*, 87 USPQ2d 1452, 533 F.3d. 1353 (Fed. Cir., 2008).

In addition, the polysaccharides having the claimed ranges of molecular weight *advantageously* provide the allergen inactivating effect that is quite different from the thickening effect of Nagasawa et al. For example, as shown in Table 3 on page 29 and Table 4 on page 30 of the present specification (also see excerpts below), Compounds 3 and 4 having "n" and MW within the claimed range have a high allergen inactivating effect

compared to that of Compounds 1 and 17 that have MW and/or "n" outside of the claimed range.

Compounds 1 and 17 are the compounds closest to the compounds described in the Nagasawa et al. examples. For example, Example 6 describes hydroxyethylcellulose having an average MW of 1,500,000 and "n" being 12 (compare to Compound 1 in the Table below); Example 8 describes hydroxyethylcellulose having an average MW of 800,000 and "n" being 20 (compare to Compound 17 in the Table below); Comparative Example 1 describes hydroxyethylcellulose having an average MW of 800,000 (compare to Compound 17 in the Table below); and Comparative Example 3 describes hydroxyethylcellulose having an average MW of 1,500,000 and "n" being 3 (compare to Compound 1 in the Table below) (see col. 10-14).

Allergen inactivating effect (%) Animal allergen (data from Table 3)

Sample	House dust 1	Dermato-phagoides farinae	Dermato-phagoides pterony-ssinus	Cat epithe-lium
Compound of the invention				
Compound 1 MW 1,500,000 n - 12	86	80	90	87
Compound 4 MW 200,000 n - 12	100	100	100	99
Compound 17 MW 800,000 n - 20	52	46	51	48
Compound 3 MW 500,000 n - 12	100	97	96	100
Comparative compound				
Tannic acid	83	62	70	92
Smectite	40	31	55	23
Distilled water	0	0	0	0

Allergen inactivating effect (%) Plant allergen (data from Table 4)

Sample	Ceder	Ragweed
Compound of the invention		
Compound 1 MW 1,500,000 n - 12	70	99
Compound 4 MW 200,000 n - 12	90	100
Comparative compound		
Tannic acid	78	Nd
Smectite	50	75
Distilled water	0	0

As can be seen from the Tables above, the closes examples in Nagasawa et al. provide inferior allergen inactivating properties compared to that of the claimed compounds. For example, the claimed polysaccharides provide advantageous antiallergenic properties when the allergen is an animal allergen or house dust (as in claims 1 and 21) and, in addition, a ceder allergen (i.e., a plant allergen) (as in claim 1).

Thus, Nagasawa et al. do not anticipate or make the claimed allergen inactivating agent obvious.

Applicants request that the rejection be withdrawn.

The rejection of claims 1-6, 8, 9, 12-14, and 17-21 under 35 U.S.C. 103(a) over Nagasawa et al. and Golz-Berner et al., US 6,245,342, is traversed because the combination of the references does not describe or suggest (1) selecting a cellulose ether as a backbone for polysaccharide derivatives, wherein the cellulose ether has an average molecular weight of 100,000 to 600,000 or 100,000 to 200,000; (2) a mask comprising (i) ear hangers attached to sheets or the ear hangers formed in a sheet material and/or the sheets inserted between the mask and the mouth, and (ii) the claimed allergen inactivating agent, and (2) a sheet for the mask. In addition, one would not have reasonably expected that substituting one hydroxyehteyl cellulose used as a thickener (as in Nagasawa et al.) for another hydroxyehteyl

cellulose (as in Golz-Berner et al.) would have provided an antiallergenic effect because the chemical art is unpredictable and there is no a substantial nexus between thickening, anti-inflammatory and antiallergenic effects.

The disclosure of Nagasawa et al. is discussed above. Nagasawa et al. do not describe or suggest selecting a cellulose ether as a backbone for polysaccharide derivatives, wherein the cellulose ether has an average molecular weight of 100,000 to 600,000 or 100,000 to 200,000 and a mask or sheet placed over the mouth and having ear hangers. Golz-Berner et al. do not cure the deficiency.

Golz-Berner et al. describe a cosmetic preparation comprising a melanogenesis-stimulating and an anti-inflammatory peptide and, optionally, hydroxyethylcellulose which can be applied to a hair mask for treating an inflammation of the scalp skin (col. 3, line 15).

Golz-Berner et al. do not describe the claimed mask and sheets.

The Examiner is of the opinion that one would have been motivated to substitute hydroxyethylcellulose in the anti-inflammatory hair mask of Golz-Berner et al. with the claimed allergenic inactivating agent comprising the claimed polysacchiride derivatives and placing the mask over the mouth having ear hangers for inactivating an allergen. Applicants respectfully disagree.

One would not have been motivated to apply an allergen inactivating agent to a hair mask because an allergic reaction usually onsets when an allergen is contacted with the skin or eyes or is inhaled, i.e., applying an anti-allergen to hair does not make sense, while applying an allergen inactivating agent to a face mask prevents inhaling the allergen.

The Golz-Berner et al. melanogenesis-stimulating and anti-inflammatory peptides act through a direct contact with the skin. The skin is stimulated through the metabolism taking place with the involvement of AMPc, which is activated by the peptides and xanthine (col. 3, lines 60-64). The peptide derivatives, especially MAPX, stimulate melanine synthesis (col.

3, lines 60-64). The semisynthetic peptides regenerate the connective tissue (col. 3, lines 60-64). The protective and regenerative effect consists first of the light protective effect caused by newly formed melanin, which plays the role of a natural UV filter (col. 3, line 65, to col. 4, line5). It is also consists of the regeneration of UV-damaged cells by modulation of cytokinins IL-1 and TFNs, as well as a synergistic effect of all peptides present in the preparation with respect to free radicals (col. 3, line 65, to col. 4, line5).

Thus, one would not have reasonably expected that the Golz-Berner et al. melanogenesis-stimulating and anti-inflammatory cosmetic preparation substituted with the claimed allergen inactivating agent would have provided an antiallergenic affect because (i) the chemical art is unpredictable and (ii) there is no a substantial nexus between anti-inflammatory and antiallergenic effects.

Also, one would not have reasonably expected that substituting one hydroxyehteyl cellulose used as a thickener for another hydroxyehteyl cellulose would have provided an antiallergenic effect because the chemical art is unpredictable and (ii) there is no a substantial nexus between anti-inflammatory and antiallergenic effects and thickening properties.

In a recent decision, the Board stated that "[t]o the extend an art is unpredictable, as the chemical arts often are, *KSR*'s focus on these "identified, predictable solutions" may present a difficult hurdle because potential solutions are less likely to be genuinely predictable." *Eisai Co, Ltd. v. Dr. Reddy's Lab., ibid.*

The present specification describes that conventional masks for pollinosis are associated with the risk that symptoms of allergic diseases may be induced when the pollen, mite, or other allergen that has been captured by the mask is released from the mask and inhaled by the patient.

In contrast, the mask and the sheet for the mask of the present invention have the merit that such allergic symptoms are less likely to be induced even if the allergen that had

been captured was released from the mask since the captured allergen is detoxidated as soon as it is captured by the mask. *See* page 14, last paragraph.

Thus, the claimed mask is advantageous for capturing and detoxicating an allergen (see pages 14-15 and 30-31 of the present specification).

Concerning Claims 7 and 16, Applicants would like to point that there is not motivation to apply the thickener of Nagasawa et al. used for cleaning hard surfaces, skin care preparations, massaging cosmetic preparations, shower preparations, hairs washing preparations, body washing preparations, garment detergents, and garment finishing agents to a face musk covering a mouth and a nose. The claimed mask provides unexpected advantageous.

> "[T]he mask and the sheet for the mask of the present invention have the merit that such allergic symptoms are less likely to be induced even if the allergen that had been captured was released from the mask since the captured allergen is detoxidated as soon as it is captured by the mask. Pages 14-15 of the present specification."

In addition, the references cited in this rejection and other art rejections of the Official Action of May 26, 2009 do not describe a musk comprising ear hangers attached to sheets or formed in a sheet material and inserted between the mask and the mouth.

The Examiner referred to Berlind, US 3,137,006 in paragraph 13 (which is not included in the art rejections) of the Official Action of May 26, 2009 as to the reference showing "the state of the art." It is not clear whether the Examiner had attempted to show that "ear hangers attached to sheets or formed in a sheet material and inserted between the mask and the mouth" is an inherent property of the mask by referring to Berlind. However, Applicants submit that masks are different and do not necessarily comprise the claimed structure. Thus, Berlind, US 3,137,006 should have been included in the rejection of the mask claims, if the Examiner is of the opinion that claims 7 and 16 are obvious. However, it is believed that Claims 7 and 8 are free of prior art as set forth in the arguments provide above.

Thus, the combination of Nagasawa et al. and Golz-Berner et al. does not make the claimed invention obvious.

Applicants request that the rejection be withdrawn.

Claims 1-6, 9, 12-15, and 18-21 are rejected under 35 U.S.C. 103(a) over Nagasawa et al and Palinczar, US 4,671,955. The rejection is traversed because the combination of the references does not describe (1) selecting a cellulose ether as a backbone for polysaccharide derivatives, wherein the cellulose ether has an average molecular weight of 100,000 to 600,000 or 100,000 to 200,000, and (2) the claimed molecular weight of the cellulose ether in combination with "n" being from 10-20 and hydroxyethylcellulose having the claimed average molecular weight.

The disclosure of Nagasawa et al. is set forth above. Nagasawa et al. do not describe the claimed limitations (1) and (2) mentioned above. Palinczar does not cure the deficiency.

Palinczar describes using ethyl hydroxyethyl cellulose in aerosols (col., 3, lines 5-12), but does not describe selecting the claimed cellulose ether as a backbone for polysaccharide derivatives, wherein the cellulose ether has an average molecular weight of 100,000 to 600,000 or 100,000 to 200,000, and the claimed molecular weight of the cellulose ether in combination with "n" being from 10-20 and hydroxyethylcellulose having the claimed average molecular weight.

Nagasawa et al. and Palinczar do not make the claimed agent obvious because the allergen inactivating effect of the Nagasawa et al. polysaccharides would not have been expected because (i) the chemical art is unpredictable and (ii) there is no a sufficient nexus between the allergen inactivating properties and thickening properties. In a recent decision, the Board stated that "[t]o the extend an art is unpredictable, as the chemical arts often are, *KSR*'s focus on these "identified, predictable solutions" may present a difficult hurdle

because potential solutions are less likely to be genuinely predictable." *Eisai Co, Ltd. v. Dr. Reddy's Lab., ibid.*

In addition, the polysaccharides having the claimed ranges of molecular weight *advantageously* provide the allergen inactivating effect that is quite different from the thickening effect of Nagasawa et al. and. For example, as shown in Table 3 on page 29 and Table 4 on page 30 of the present specification, Compounds 2, 3, 4, 14, and 16 having "n" and MW within the claimed range have high allergen inactivating effect compared to that of Compounds 1 and 17 that have MW and/or "n" outside of the claimed range.

Applicants request that the rejection be withdrawn.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

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